

**BOARD OF DIRECTORS' HETEROGENEITY AND FINANCIAL PERFORMANCE  
OF LISTED DEPOSIT MONEY BANKS IN NIGERIA**

**BY**

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AHMADU BELLO UNIVERSITY, ZARIA  
NIGERIA.**

**FEBRUARY, 2016**

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*M.Sc/ADMIN/0917/2011-2012*

**BEING A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE  
STUDIES, AHMADU BELLO UNIVERSITY ZARIA, IN PARTIAL FULFILLMENT OF  
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DEGREE IN ACCOUNTING AND FINANCE**

**DEPARTMENT OF ACCOUNTING  
AHMADU BELLO UNIVERSITY,  
ZARIA, NIGERIA**

**FEBRUARY, 2016**

## **DECLARATION**

I declare that the work in this dissertation entitled board of directors' heterogeneity and financial performance of listed deposit money banks in Nigeria has been carried out by me in the Department of Accounting, Ahmadu Bello University, Zaria. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree at this or any other institution.

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***Yusuf IbrahimOLAOTI***  
***M.Sc/ADMIN0917/2011-2012***

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***DATE***

## CERTIFICATION

This dissertation, entitled board of directors' heterogeneity and financial performance of listed deposit money banks in Nigeria by Yusuf Ibrahim OLAOTI meets the regulations governing the award of the degree of Master of Science (M.Sc) in Accounting and Finance of the Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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**Prof. N.M Yauri**  
**Chairman, Supervisory Committee**

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## **DEDICATION**

This dissertation is dedicated to Almighty ALLAH (SWT), the giver of knowledge and understanding, to my friends Late Isah Haruna Mohammed and Late Abdulazeez Abdulqodir, both who had passed on during the course of this programme (may Allah have mercy on their souls), ameen.

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***Yusuf IbrahimOLAOTI***  
***M.Sc/ADMIN/0917/2011-2012***





## **ABSTRACT**

While boards are the main tool of internal governance mechanism, their efficacy may vary depending on their diversities. This study examined the impact of Board of Directors' heterogeneity on the financial performance of listed deposit money banks in Nigeria. This area of board diversity especially the ethnic diversity is still a novel area of research in Nigeria. The financial performance in this study was the dependent variable while nationality, gender and ethnic composition of Board of Directors were the independent variables. The population of the study consists of fifteen (15) listed deposit money banks in Nigeria as at 31<sup>st</sup> December 2012. Eleven of these banks constituted the sample size for the period of eight years (2005-2012). The study employed multiple regressions as a tool for analysis. Secondary data obtained from the financial statements of the companies were analyzed. The result showed that gender and ethnicity of board directors had positive and significant impact on banks financial performance while, nationality of the board of directors showed a negative but significant relation to banks financial performance. For banks to achieve greater returns in the market, it is recommended that ethnic composition of Board of Directors of listed deposit money banks in Nigeria should be integrated into the corporate governance practices as allowing for a more ethnic balance translates into better financial performance.

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## **CHAPTER ONE INTRODUCTION**

### **1.1 Background to the Study**

In recent years, matters surrounding Board of Director leadership and oversight roles have taken on increased significance to investors so much so that today's economic challenges highlight the importance that board heterogeneity plays in enhancing value and providing companies with a full range of fresh talents and experience. These challenges have been perceived overtime and have become a matter of concern after the collapse of many big multinational companies around the world arising from various board scandals.

The bleak aftermath of corporate scandals that stormed the United States which led to the collapse of Enron, WorldCom, Dot-Com Bubble, Tyco and Xerox together with the subsequent liquidation of HIH insurance in Australia in the year 2001 and Parmalat in Italy which is known as the biggest bankruptcy in Europe with estimated loss totaling \$20 billion and Oceanic Bank in Nigeria in 2009 (Wahid, 2012).

The collapse of these multinational companies has raised concern over the activities of the Board of Directors and this has brought about looking out for other governance mechanisms one of which is board heterogeneity. Many practitioners have clamored for this board heterogeneity with the argument that it can mitigate the effect of homogeneous boards such as groupthink which is a phenomenon in which members' effort to achieve consensus override their ability to realistically appraise alternative courses of actions (Rhode & Packel, 2010). The clamor for board heterogeneity led United States Security and Exchange Commission in 2009 to

approval rules that require enhanced proxy statement disclosure regarding corporate governance and compensation matters. Among these disclosure requirements is the item 407 (c) (2) (vi) of regulation S-K which requires public companies to disclose how they view diversity with respect to their boards. Among the arguments for this requirement is the fact that human resources in terms of women directors were untapped and minorities remain woefully represented.

This argument that women directors and minorities were woefully represented was made possible with Alliance for Diversity Compiled Statistics of 2008 which shows that out of the composition of board members of fortune 100 companies; 71.5% were white men and only 28.5% of the board seats were occupied by women and minorities. Similarly, Agullar (2010) the United States SEC commissioner in 2010 gave a speech on why board diversity is important and how to improve it. He emphasized on its importance by making reference to the survey conducted by the California's Public Employees Retirement System (CalPERS), which reported that companies that have heterogeneous boards perform better than boards without same.

While heterogeneity and homogeneity are two sides of a coin, homogeneous group is best in handling routine problems, ill-defined and novel problems are best handled by heterogeneous groups (Follett, House & Kerr, 1976). Variety in the skills, education, age, culture, gender, ethnicity, race and other attributes of heterogeneity can either enhance board effectiveness and the overall firm performance or hinder the smooth process of decision making and may be detrimental to the performance of the firm due to difference in individual preference, interest or perspective (Knyazeva, Knyazeva & Raheja, 2009).

Board heterogeneity can be a substitute for other governance mechanisms as differences among members on the board can improve the quality of board decisions but only if the board members themselves take the advantage of the reward of heterogeneity rather than window-dressing the concept of heterogeneity on the board (Wahid, 2012). Board heterogeneity focuses also on the linkages between directors and the strategies they pursue as regards the affairs of their organization. These strategies are as much a reflection of the ingrained characteristics and backgrounds of the executives.

Bank performance is function of various factors such as regulatory scrutiny, degree of financial development and deposit insurance systems. It is also understood that the banking industry is largely characterized complex agency conflicts than any other industry (Levine 2004). For this reason, it of utmost importance that shareholders consistently seek various governance mechanisms that can help limit this conflict, of which board heterogeneity is one of the mechanisms that can mitigate the agency conflict by providing various alternative mix of directors on the board.

Gender, nationality, race, age and ethnicity are categorized as demographic differences among Board of Directors which influence the decision they make and hence affect the firm overall performance (Hambrick & Mason, 1984). Under nationality, Masulis, Wang and Xie (2010), found that 13% of large United States of America firms have Foreign Independent Directors serving on their boards. They concluded that foreign directors bring in international expertise into the boardroom especially in the area of cross-border acquisition and explained that they



exhibit poor meeting attendance, which affects their ability to contribute positively to the affairs of the board as well as organizational performance.

Smith, Smith and Verner (2005) argues that despite the focus on gender composition, the proportion of women on board is still very low in most countries. Although, while countries like U.S and some others in Europe have increasing population of women on board, Norway and Sweden authorities have enacted laws on gender composition so as to encourage gender equality. For instance, the law in Norway as at 2005 states that at least 40% of larger firms' boardmembers must be female.

Ethnicity especially in Nigeria, studies of Omoye and Eriki(2013), and Ujunwa, Okoye and Nwakoby(2012) described ethnic diversity of boardmembers and the correlation to firm performance in Nigeria as a novel area. This is one of the major importance of this study, because given a country like Nigeria with variety of ethnic groups with different religious beliefs and cultural backgrounds, such differences need to be related to organizational performance.

## **1.2 Statement of Research Problem**

While boards are the main tool of internal governance mechanism, their efficacy may vary depending on their diversities. With the relationship between heterogeneity in boardroom and firm performance, or lack thereof, firms will be encouraged to make appropriate choices about board appointments to create and improve firm value as constructing a quality boardroom is all about the caliber and perspective of individual directors chosen. For example, one major noteworthy aspect of Enron's board as pointed out by Masulis, Wang and Xie (2010) about foreign directors was that its audit committee included two foreign independent directors; the

Chairman of the Hang Lung Group in Hong Kong and a senior executive of Group Bozano in Brazil. This incidence, at a minimum, raises questions about the effectiveness of foreign directors' monitoring of a firm's operations and financial reporting.

In Nigeria, the poor performance of boards in 2009 which almost led to the near collapse of nine banks in the country has eroded investors' confidence in banks leading them into divesting their investments and has also painted a poor image on the financial sector. It is a matter of concern as there are very few empirical analyses on this aspect of board diversity in Nigeria as most studies have been on board independence, CEO duality and board gender but rarely board ethnicity (Ogbechie, 2012; Ogbechie & Koufopoulos, 2010). Ujunwa et al (2012) and Omoye and Eriki (2013) that have both examined ethnicity of directors of randomly selected, but their results remain inconclusive as some variables failed to test at any significant level. This study focuses on the banking sector because of their complex agency conflicts when compared with other industries.

### **1.3 Research Questions**

- i How does nationality of Board of Directors affect the financial performance of listed deposit money banks in Nigeria?
- ii To what extent does gender of Board of Directors influence the financial performance of listed deposit money banks in Nigeria?

- iii What impact does ethnicity of Board of Directors has on the financial performance of listed deposit money banks in Nigeria?

#### **1.4 Objectives of the Study**

The main objective of this study is to examine the impact of Board of Director's heterogeneity on the financial performance of listed deposit money banks in Nigeria. The specific objectives of the study are to;

- i. Determine the extent to which board nationality of board members affect the financial performance of listed deposit money banks in Nigeria.
- ii. Ascertain the extent to which board gender heterogeneity affect the financial performance of listed deposit money banks in Nigeria.
- iii. Examine the effect of board ethnicity on the financial performance of listed deposit money banks in Nigeria.

#### **1.5 Research Hypotheses**

In order to achieve the stated objectives, the following hypotheses are formulated.

- H<sub>0</sub>1. Board nationality of board members has no significant effect on the financial performance of listed deposit money banks in Nigeria.
- H<sub>0</sub>2. Board gender has no significant impact on the financial performance of listed deposit money banks in Nigeria.
- H<sub>0</sub>3. Board ethnicity has no significant impact on the financial performance of listed deposit money banks in Nigeria.

## **1.6 Scope of the Study**

This study examines the relationship between Board of Directors' heterogeneity and financial performance of listed deposit money banks in Nigeria focusing on the demographic heterogeneity variables. In order to evaluate this impact, the study covers the period of eight years i.e. from 2005 to 2012. The period coincided with the time when Code of Corporate governance for banks in 2006 was released as well as the bank failure of 2009 in Nigeria. Financial performance is the dependent variable of the study which is proxied with Return on Equity (ROE), while nationality, gender and ethnicity (which comprises of North, West and East) are the explanatory variables.

## **1.7 Significance of the Study**

The outcome of the study is expected to be of benefit to shareholders who have to make optimal decision as regards appointment of directors and the Board of Directors when appointing casual directors to fill in vacant directors' position during the year in order to maximize the performance of the firm and while boards are the main tool of internal governance mechanism, their efficacy may vary depending on the diversity of the board.

The study has the potential to also benefit professional bodies by providing guidance in the area of financial reporting standards relating to board diversity for the benefit of all stakeholders. More importantly, a heterogeneous board can help build a diverse workforce that adds great value. These set of workforce can help to cater for different customer base and this will add greater value to the firm.

Most importantly are the regulatory agencies and policy makers who are either public authorities or government agencies responsible for exercising autonomous authority over some areas of human and corporate activity in a regulatory or supervisory capacity. This study will enable them to implement policies on board heterogeneity as suggested by academic researches such as this and not mere adoption of the foreign policies in this area i. e this implies that the study would assist the agencies in formulating policies in relation to the structure of corporate boardroom.

## **CHAPTER TWO LITERATURE REVIEW**

### **2.1 Introduction**

This chapter reviews literature on board heterogeneity and its relationship with corporate financial performance. The chapter also presents and discusses the theories on which this study is anchored.

### **2.2 The concept of board heterogeneity**

Heterogeneity is a word that signifies diversity. There are varieties of dimensions along which individuals within a group can differ such as differences in board composition in terms of ethnicity, age, education, nationality and gender (Schwizer, Cucinelli & Soana, 2012). While some of these differences are observable, others are not.

The Australian Multicultural Foundation (2010) defined the term heterogeneity as significant differences between people, including perceptions of differences that need to be considered in particular situations and circumstances. Often the most significant differences are the least obvious, such as our thinking styles or beliefs and values. They gave multiple dimensions of diversity which may be more or less significant depending on the nature of the organization. These include gender, age, culture, ethnicity, regional culture, sexual orientation, mental and physical abilities, education, religion, language literacy, work experience, functional role and status, economic status, family status, career roles, geographic location, work style, communication style, learning style, thinking style, management style, personality,

ideology, profession, and industry. The definition above can be said to be lacking as it tends to describe beliefs and values as least obvious and less significant. For instance in a country such as Nigeria, these beliefs, values and culture play a major role in our lives and because most of our decisions are mostly affected by our religious and cultural believes.

Kiefer(2005) explained the concept of heterogeneity by arguing that homogeneity and heterogeneity refers to the extremes of the diversity scale. They are used as anchoring points, meaning less heterogeneous or more heterogeneous and less homogenous or more homogenous. They refer homogeneity as a diversity score equal to zero. This zero refers to the complete absence of dissimilarities between the individual boardmembers. Heterogeneity refers to the complete dissimilarities between individual boardmembers with regards to the included dimensions. However, they propose that there is no quantitative upper limit for heterogeneity as the scope of dispersion is very wide. From this explanation, the assumption that there are complete dissimilarities between the individual boardmembers is unrealistic because the presence of more than three boardmembers signifies that at least two of the directors are of the same gender.

Van der Walt and Ingley (2003) defined boardheterogeneity as the variety in the composition of Boardof Directors. Within this definition, there are two (2) main categories of boarddiversity, namely, demographic diversity and cognitive diversity. Nüesch, (2009) stated that demographic diversity relates to the observable or readily detectable attributes of directors that includes race or ethnicity, nationality, gender and age whereas, Mansoor, Ali, Ali and Ali, (2013) highlight that cognitive diversity relates to the unobservable or less visible attributes of directors, such as

educational, functional and occupational backgrounds, industry experience, and organizational membership.

Taylor (2001) defined heterogeneity as the variation of social and cultural identities among people existing together in a defined employment or market setting. Social and cultural identity refers to the personal affiliation with groups that research has shown to have significant influence on peoples' major life experiences. These affiliations include gender, ethnicity, race, national origin, religion, age cohort and work specialization, among others.

The definition given by Taylor (2001) captures to a large extent the meaning of heterogeneity although it does not specifically relate to the concept of board heterogeneity. However, the definition given by Van der Walt and Ingley (2003) has the combination of the heterogeneity variables further broken down into cognitive and demographic diversity and therefore, the study adopting there definition as it suits the context of our research whereby it captures the variables (explanatory variables) under study.

Some researchers have also expressed their views on the concept of board heterogeneity. For example Zainal, Zulkifli and Saleh (2013) based on their findings explained that a firm composed of heterogeneous boardroom are normally larger in size and that they possess greater number of directors that sit on the board. Furthermore, their findings indicated a slow progress in the adoption of board heterogeneity concept in many countries around the world and they attributed this slow adoption to the inconclusive outcomes on the very benefit of heterogeneity to the firm. The study also argue that the best possible way of tackling the slow adoption is to have



more empirical evidences to support the benefit of an heterogeneous board. This will also speed up the introduction of new policies and the implementation of existing ones on board heterogeneity by regulators.

Mitton (2002) carried out a cross firm analysis of the impact of corporate governance on the east Asian financial crisis and concluded that ethnic diversity among the Board of Directors could be used as an effective way to improve on corporate governance among the listed companies in the event of economic instability. Consequently, Shukeri, Shin and Shaari (2012) added that larger ethnic heterogeneity on the board can better the performance of a firm.

Kochan, *et al.*, (2003) argued that there is virtually no evidence to support the assertion that heterogeneity is inevitably either good or bad for business. The study stated that at every point in time, an organization should focus on the conditions that can leverage benefits from diversity or, at the very least, mitigate its negative effects. The study further explained that heterogeneity gives every director in the boardroom in an organization an opportunity to learn from one another on how best to carry out their work and those organizations that invest their resources in taking advantage of the opportunities that heterogeneity offers should outperform those that fail to make such investments. However, Winston (2001) argued that the study of diversity has not led to the identification of a direct, causal relationship between fostering diversity and better firm performance and the study of diversity requires further consideration of the nature of the relationship between diversity and firm performance.

Findings on board heterogeneity literatures have described heterogeneity among board members as an avenue for increased creativity and innovation (Alesina & La Ferrara, 2003; Ferreira, 2010; Kiefer, 2005). Ferreira (2010) primarily focused on gender composition but discussed other heterogeneity attributes in general terms; they argue that people with distinct backgrounds and with different life experiences are likely to approach similar problems in different ways. They further explained that heterogeneous groups foster creativity and produce a vague range of perspectives and solutions to problems. Therefore, heterogeneous groups are less prone to suffer from groupthink and can also contribute to group creativity by acquiring information through a more diverse set of sources.

Kiefer (2005) conducted a research on German companies' top management team. Their principal focus was on age diversity, firm tenure diversity and top management team tenure diversity, and based on their findings they explained that the atmosphere in which an organization operates is mostly an important factor as to what necessitates heterogeneity. It is expected that more heterogeneous groups perform better in turbulent atmospheres than in stable ones since turbulent environments require a vast amount of competing ideas, up to date information and better decisions in order to gain or maintain competitive advantage. Heterogeneity within the group increases the amount of information required, the available alternatives explored and the increased necessity for task-related communication. Therefore, all these factors put together will lead to innovation as better decisions will be made and consequently, better performance predominates.

Miller and Triana (2009) are of the opinion that innovation should mediate the relationship between directors heterogeneity and firm performance, they concluded that innovation functions as the mediating variable that transmit the impact of directors heterogeneity to firm performance. They further explained that increasing heterogeneity among the Board of Directors leads to more varied ideas, perspectives, and vast networks which increase innovation and in turn better the firm performance.

Damvad (2007) found that heterogeneity provides new possibilities for a board. It was highlighted that heterogeneity can act as a source of innovation and renewal. So also in the aspect of the entire organization, heterogeneity will strengthen creativity of the entire workforce and create ability to develop new ideas, products, services, and business models. A major finding from the research was that companies committed to promote heterogeneity are up to twice as likely to be innovative as companies that do not work actively with heterogeneity.

### **2.3 Concept of Financial performance**

Organizational performance has various measurement but basically two domain are emphasized in the literature: The financial one represented by profitability, growth and market value; and the operational domain that includes nonfinancial competitive aspects such as customer satisfaction, quality, innovation, employee satisfaction and reputation (Venkatraman and Ramanujam, 1986).

(Forza and Salvador, 2000:359) defined performance as;

“An information system that supports managers in the performance management process mainly fulfilling two primary functions: the first one consists in enabling and structuring communication between all the organizational units (individuals, teams, processes, functions, etc.) involved in the process of target setting. The second one is that of

collecting, processing and delivering information on the performance of people, activities, processes, products, business units, etc.

Franco-Santos *et al.*, (2007) argued that the financial performance are mostly denoted by financial ratios which are considered as a meaningful financial indicator which can be used by the different financial information users. Their study classified these financial ratios into liquidity ratios, activity (operational) ratios, profitability ratios, debt ratios and market ratio. The profitability ratios such as the return on assets (ROA) and the return on equity (ROE) are the most used profitability ratios in the analysis. They stated that while ROA measured as net profit to total assets measures the operating efficiency of the company based on the firm's generated profits from its total assets, (ROE) measured as net profit to total shareholders' equity measures the shareholders rate of return on their investment in the company.

#### **2.4 Heterogeneity Attributes**

Heterogeneity as a concept is broadly categorized into demographic and cognitive heterogeneity. (Nüesch, 2009) and (Mansoor, Ali, Ali and Ali, 2013). Demographic heterogeneity on board of directors includes age, functional background, education, tenure, (Hambrick and Mason, 1984) Cognitive heterogeneity is the ability of the group to differently process, perceive and interpret information and varying stimuli (Milliken & Martins, 1996). As far as heterogeneity of Board of Directors is concerned, it is imperative for researchers to uncover the processes that link such diversity to the affairs of the organization (Lawrence, 1997).

Heterogeneous boards bring multiple and different perspectives to oversight and advising duties that potentially yield benefits to firm shareholders through improved resource utilization, problem-solving and strategy formulation. When firms with inherent complex operations are involved, increasing heterogeneity in the boardroom plays a key role in improving the performance of such firms and also heterogeneous workforce provides a competitive advantage by allowing the firms to more effectively communicate with a broad customer base (Anderson *et al.*, 2009). Macfarlane, Sinhuber and Khan (2010) therefore observed that there is a meaningful relationship between board heterogeneity and improved firm financial performance and that the best strategy to be put in place for effectiveness in the recruitment of talent and retaining staff is by having a heterogeneous group of directors.

Maytree Foundation (2008) explained four major reasons why heterogeneity at the leadership level is of paramount importance which can result to increasing innovation, access to markets and consumer intelligence and also the fact that heterogeneity strengthens a board and impact on its effectiveness. According to the foundation, heterogeneity enhances the quality of corporate decisions as the members on the boards are directly involved in issuing, restructuring, takeover exercises, introducing measures to enhance regulatory, transparency, accountability and independence Marimuthu and Kolandaisamy (2009). Secondly, Heterogeneity helps build social capital and cohesion among diverse populations. The Foundation defined social capital to mean the value of networks and relationships that satisfy social needs and produce outcomes such as a sense of belonging, compliance with the law and trust in public institutions. While social cohesion is referred to as the capacity for cooperation and participation in a society.

Thirdly, a heterogeneous board demonstrates a board's connection with the community. This assists the board in understanding and responding to the different groups seeking grants. Fourthly, an organization with a heterogeneous board has a competitive advantage over others as it portrays itself as an organization having concern for social issues and such strategy will attract potential investors that are very much interested in social responsibility. As such, these potential investors will not hesitate to pay premium for those firms that pay more attention to heterogeneity management (Roberson & Park 2006).

### **Foreign national heterogeneity**

In analyzing the linkage between foreign directors and the affairs of the organization that they govern suggests that foreign directors, depending on their cultural distance from the country in which a firm is headquartered, can introduce different values, ways of cognition, and personality features to the board, and domestic internationally experienced managers and directors can contribute to the knowledge of such foreign values, cognition models, and typical personality profiles. In the latter case, it is also conceivable that after a particularly long foreign assignment, a given person will have assimilated certain foreign values, ways of cognition, and personality characteristics typical of the country of his/her stay (Kaczmarek, 2009).

Masulis and Wang (2010) found that firms with foreign directors make better cross-border acquisitions when the targets are from the home regions of foreign directors. However, their presence brings about monitoring deficiencies and adverse effect on corporate governance, they also find that foreign directors display poor board meeting attendance records, and firms with foreign directors on their boards tend to pay their CEOs excessively high compensation and are

more prone to commit financial misreporting that requires future restatements. Their evaluation of the overall effect of foreign directors on firm performance shows that firms with foreign directors are associated with significantly poorer performance, especially when they do not have much business presence in their foreign directors' home region, but they make increasingly larger contribution to firm performance as a firm's operation in their home region becomes more important.

### **Gender heterogeneity**

Females on the Board of Directors can improve a firm's reputation through reputation-building activities such as philanthropy and community outreach. These charitable giving and philanthropic activities improve the firm's image and reputation, acting as a signal to stakeholders (Brammer and Millington, 2005). However, if female board members are involved in forms of philanthropy that are not strongly related to firm reputation, it will be obvious that the end result of such philanthropic activities will not reflect on the financial performance of the firm (Miller & Triana, 2009).

Female directors positively affect the attendance performance of male directors (Adams and Ferreira, 2008), take their role more seriously and better prepare for meetings. They also tend to ask more questions and become more vocal if there are three or more female directors (Konrad, Kramer and Erkut, 2008). As such, gender diversity enhances the board's independence and organizational performance.

Female directors are often collaborative leaders, they do not shy away from controversial issues and are more likely than men to ask tough questions, demand direct and detailed answers. They also bring new issues and perspectives to the table, broadening the content of boardroom discussions to include the perspectives of multiple stakeholders and add perspectives that broaden boardroom discussions even further (Kramer, Konrad & Erkut, 2006). Women directors are also considered to be more proactive since they have to face various challenges prior to holding seats on the board, which reward them great prestige in the environment (Krishnan & Park, 2005).

Dobbin and Jung (2011) found that a reduction in assets increases the likelihood that a firm will see increases in female directorships, which suggests that growing firms are less likely to appoint women. Their findings suggest that when it comes to performance, the presence of female directors do not affect firms' return on assets (ROA), but have significant negative effects on Tobin's q i.e. an increase in gender diversity on boards is followed by a significant decrease in stock value. This provides some support for the notion that institutional investors do not like to see firms appoint women directors.

### **Ethnic heterogeneity**

Ethnicity, its existence or degree of force, is not realized in the possession and perpetuation of distinct cultural characteristics by a particular group. Ethnic identity and difference is created and becomes culturally and politically meaningful in terms of how it inter-relates to other groups and to broader social, political and economic processes. Ethnic boundaries, for both sociology and anthropology, tend to be the outcome of social action (Malesevic, 2004).



Adopting a policy ethnic diversity will promote the development of a higher level of corporate governance and help to improve the board's decision-making process. People from different backgrounds are likely to approach problems in different ways and allow the board to consider a wider range of options and solutions to corporate issues. Boards diversified along ethnic groups are also said to be less likely to take extreme positions and more likely to engage in higher quality analysis (Wiersema & Bantel, 1992).

Marimuthu (2008), found a positive and significant association between board ethnicity and performance. Their findings suggest that increased ethnic diversity on boards of directors would lead to higher firm financial performance and that board ethnic diversity was proven to be an effective tool that should be imposed on boards of directors for a greater performance.

## **2.5 Empirical review on director heterogeneity and firm performance**

The following variables used in this study concerning director heterogeneity and firm performance are discussed in detail in the section below:

### **2.5.1 Board nationality and firm performance**

Daniel, McConnel and Naveen (2013) conducted a study primarily on the advisory role of foreign directors in U.S firms while eliminating those not incorporated in U.S. Their study was carried out on S&P 1500 firms with sample size encompassing 1998 through 2007, While proxies for the other model parameters were indicated as:  $s$ ,  $V_0$ , and  $m$ . Where ' $s$ ' is the ratio of foreign sales to total sales as fraction of foreign sales. ' $V_0$ ' is the natural logarithm of sales. The study used Tobin's  $q$  measured as the sum of book value of debt plus market value of equity divided by the book value of assets as the proxy for firm value. Therefore, they concluded that it

is not the mere addition of a foreign director that adds value to the firm, but that value is only added when firms themselves can benefit from the director's advisory services in a foreign country.

Miletkov, Poulsen and Wintoki (2012) conducted a study on determinant of having Foreign Independent Director and its impact they have on firm performance. They used a cross-section of more than 20,000 firms from 98 countries. They used the OLS regression technique to test their hypothesis by measuring firm performance in terms of ROA and FID measured as percentage of FID on total boardsize and in some case, binary measurements were used. Industry Fixed Effect was used as part of the control variables to account for broad specific factors that may affect performance and FID to control for country-level heterogeneity. They used country-adjusted ROA by subtracting the country's median ROA from the firm's ROA.

There finding stated that FID is significantly negatively associated with firm performance. They also found negative significance between the presence of a Foreign Independent Directors and firm performance in wealthier countries with developed capital market, better education and legal institution but more negative significance with countries with less these characteristics. Their results also suggest that the further away a foreign director's home country is from his host country, the more negative is the effect of the director on firm operating performance, and this supports the idea that the physical distance from company headquarter hampers the foreign directors' ability to effectively monitor management.

Study conducted by EgonZehnder International (2012) on the European boarddiversity analysis has shown that having an international member on Board of Directors is gaining more grounds than in earlier years articulating that only 12.2% of the companies in Europe in their survey carried out had no foreign national on their board. Although they accentuate that this growth has been static or stalled in the last two years and this delay is attributed to the persistent reduction in the size of European boards. Consequently, the trend of the proportion of non-national boardmembers in Europe has risen from 23% in 2006 to 32% in 2012 which represents an increase of approximately 40%.

Darmadi (2011) conducted a study on 169 Indonesian firms. Their result suggested that there is a non-significant relationship between boardnationality and firm performance. They found that board nationality has no influence at all on ROA and Tobin Q. They attributed this outcome to the possibility that firms with greater numbers of foreign boardnationals in their boardroom are not perceived by the market as more attractive than their counterparts that have no or lower proportions of foreign directors on their board.

Masulis, Wang andXie (2010) conducted a study on the effect of foreign directors on corporate governance and firm performance. The study was carried out on S & P 500 companies within the period of 1998 to 2006. First they studied how foreign independent directors (FIDs) can contribute to firm performance and shareholders' value through their advisory role, their aim here was to find out whether or not FIDs make better cross-border acquisition and they found that acquirer announcement-period abnormal returns are significantly higher in deals where the acquirer has a FID who is from the same region as the target.

Their study found that FIDs are three times likely more than their domestic counterparts to miss at least 25% of board meetings with statistically significant differences. Next was to examine the impact of FIDs on the quality of firms' accounting disclosure and CEO compensation policies in which they found that firms with FIDs are significantly more likely to engage in financial misreporting and payment of excessive compensations to their CEOs of which a slightly lower percentage is equity based, hence, they classify them as poor managerial monitors, weak corporate governance mechanisms and higher agency cost. They also examined the impact of FIDs on firm performance and shareholders' value. They analyzed the result through OLS, firm fixed effects and 2 stage Least Square (2SLS) regression and found that FIDs exhibit significantly lower ROA especially as a result of inconsistency presence in the home region. They also estimated OLS fixed effects and 2SLS regression of Tobin's Q to measure firm value; they found this to be the same as that of the ROA result.

Adams, Hermalin, and Weisbach (2009) also explained that foreign directors unlike the indigenous directors can enhance the advisory capability of the entire Board of Directors because living and working in foreign countries has given them first-hand experience and knowledge on how the foreign markets operate and also gives them access to a network of foreign contacts. In the end, these resources could allow the foreign directors to provide valuable advisory assistance as mentioned above to firms, particularly those firms with larger foreign operations or to those other firms that plan to expand globally and internationally.

### **2.5.2 Board gender and firm performance**

Joecks, Pull and Vetter (2012) after conducting a study on gender diversity and firm performance using their sample represent 151 Listed German firms over the period of six years from 2000-2005. They measured firm performance in terms of ROE. In their various models they used the OLS estimators with robust standard errors and firm clusters and also applied the random effect estimator. They found that female representation on the board is higher in the financial sector, telecommunication, Pharma & Health care and in consumer goods.

Joecks, Pull and Vetter (2012) finally concluded that gender diversity has no linear relationship with ROE. However they found it to be positively related to market value as well as multiple directorship and board size; arguing that larger and more experienced boards have on average more women. They favour the critical mass theory by concluding that having three or more women on the board significantly increases ROE as compared to having only one female on board. This study focused on German firms which are a developed country and therefore their result cannot be generalized to include developing countries like Nigeria.

Nielsen and Huse (2010) studied 201 Norwegian firms and examined the impact of female directors on corporate board effectiveness. They measured board gender in two ways; the ratio of women directors to board size and they also used dummy variables for the presence of women directors on the board. They concluded that both measurement of board gender yielded similar results.

Credit Suisse Research Institute (2012) examine 2,360 companies and they concluded that Companies with at least one woman on the board outperformed in terms of share price

performance those with no women on their board over the course of the past six years from 2005 to 2011. They further expanded their explanation stating that stocks of firms with greater gender diversity on their boards generally look defensive; they tend to perform best when markets are falling, deliver higher average returns on equity (ROEs) through the cycle, exhibit less volatility in earnings and typically have lower gearing ratios.

In a study conducted by Egon Zehnder International (2012) on the European board diversity it was reported that on every board in five Scandinavian countries there is at least one female director in their boardroom, and the United Kingdom is close behind with about 95% of the companies' board now having female directors in their boardroom. However they added that the Netherlands Italy and Greece were still lagging behind, with approximately one third of their boards still wholly male, rising to half in Portugal and Luxembourg.

Dobblin and Jung (2011) conducted a study on how shareholders' proposals affect the appointment of women to the boards and how women directors affect profit, stock performance and institutional shareholding. They studied more than 400 large U.S firms for the period 1997-2006 using a pooled cross-sectional time series data and fixed effects regression. They found that institutional investor increases the number of women on board but increase in board gender diversity does not affect subsequent profitability. They also found that increase in gender diversity leads to significant decrease in stock values.

Marimuthu and Kolandiasamy (2009) conducted a study on gender diversity on the Board of Directors and their relevance to performance. They used secondary data of top 100 non-financial

listed companies from 2000-2006 based on their market capitalization. They measured firm performance in terms of return on asset (ROA) and return on equity (ROE) and gender as the ratio of female directors to total directors. They used boardsize, firm age and firm size as the control variables and Ordinary Least Square regression for data analysis. Their findings indicated that gender was not correlated with performance within 2000-2003 but registered a positive relationship in ROE in 2005 and hence, they concluded that gender diversity was not relevant to firm financial performance. The study was conducted on a yearly basis but only large companies were considered which will not be applicable to smaller firms, therefore their outcome could be regarded as misleading if applied to smaller firms.

Smith, Smith and Verner (2006) studied 2500 Danish firms within 1993-2001. They found a positive relationship between female representation on board and firm performance, Adams & Ferreira (2004) find a positive relationship between the proportion of female directors and ROE, but a negative relationship between female presence on the board and ROA. Similarly, Vink (2007) found positive significance between gender and Tobin Q while Darmadi (2011) found a significant negative relationship between gender and the measures of firm performance (ROA and Tobin Q)

Erhardt, Werbel and Shrader (2003) examine the relationship between demographic heterogeneity of boards of directors from 1993 to 1998 on 127 large U.S companies. They used ROA and ROI as the measure of performance and using correlation and regression analysis for analyzing their data. Their study measured gender by dividing the number of non-white and white females by the number of executive directors for 1997 and 1998. They found that Gender diversity within

the Board of Directors has an impact on the overall firm performance. The limitation of this study can be seen from the aspect of the sampling in which only Large U.S Corporation were studied and so the conclusion arrived at might not be applicable to smaller companies.



### **2.5.3 Board ethnicity and firm performance**

Omoye and Eriki (2013) conducted a study on 96 randomly selected quoted firms on the Nigerian Stock Exchange as at December 2012 using Ordinary Least Square regression analysis. Their argument was that board ethnic heterogeneity influences firm performance and that there is a possibility of improving performance through appropriate balancing of the ethnicity of board members. They used the ratio of all three major tribes to the total board size as the proxy for carrying out their research. In conclusion, they found that all three major tribes have negative impact on firm performance (ROE), in which the interaction between Hausa and Yoruba directors produce the highest negative significant influence on performance.

Omoye and Eriki (2013) also found that most firms whose boardroom is dominated by Hausa tribe are the ones that perform poorly in returns on equity (ROE), while the Yoruba board dominance has lesser negative influence on performance as seen in that of the Hausa board members and finally that of Igbo did not even test at 10% level of significance but had a negative impact on performance. They finally concluded that in as much as balancing ethnic diversity among Board of Directors is concerned, more emphasis should be placed on the Hausas and Yoruba board members as the Igbo board members produced not only negative influence on performance but they also produced a statistically insignificant result. In this work, the years covered by the study is not been stated which is a criteria for a valid research. Also, their work is not industry specific and therefore cannot be generalized to a particular industry.

Ujunwa *et al.*, (2012) using a panel data of 122 quoted firms covering a period of 1991 to 2008. They investigated the impact of board diversity on firm performance and made use of the Fixed

Effect and Random Effect (Generalized Least Squares) regression technique. The dependent variable used was Return on Asset (ROA) and measuring ethnicity by using dummy variable, attaching a value of one (1) to Board having different ethnic groups and zero (0) if otherwise. They argued that when Boardsize is increased by an increasing representation to outsiders, then to a large extent there will be ethnic diversity in the Boardroom as a result of the increase. They found that Boardethnicity produced a positive regression coefficient but at an insignificant level that cannot be used in predicting the financial performance of Nigeria quoted firms.

Olaoti (2012) conducted a study on director heterogeneity and firm performance, the study focused on five old generation banks between the periods of 2005-2011. They measured ethnicity by allocating 3 to firms with three main ethnic groups; they categorized these groups into Hausa/Fulani, Yoruba and Igbo and measured firm performance in terms of ROE. Ordinary Least Square regression technique was used to test their hypothesis. They found that ethnic diversity is significantly and positively impacting on ROE. They concluded that the combination of two or more ethnic groups can improve the efficacy of the board and hence firm performance. The key weaknesses in the study is the small size of the sample and the use of old generation banks only.

Marimuthu and Kolandiasamy (2009) based on their study conducted on ethnic and gender diversity. They measured ethnicity as the ratio of non-Malay directors divided by the total number of directors. They found that the result was not consistent over the seven (7) years under review. Year 2000-2003 showed a positive correlation with ROA while the later part of the years did not reveal result better than the first 2000-2003. Notwithstanding the inconsistent result over

the years, the study concluded that ethnic diversity could be used as an effective governance mechanism of economic instability. The weakness in this study is based on the argument that only large companies are considered and therefore the result cannot be generalized to include small firms.

Miller and Triana (2009) conducted a study on demographic diversity of the boardroom. They used demographic data on fortune 500 firms with a sample size of 326 firms to investigate firm reputation and 432 to investigate firm innovation. They measured firm performance in terms of firm reputation (Return on sales/return on Investment) and innovation (research and development cost). They made use of Blau index and proportion to measure the diversity variables which includes ethnicity classified based on racial differences (Caucasian, African-American, Hispanic and Asians) and gender in terms of number of female directors. They adopted some control variables which include Industry differences, firm size, firm age and liquidity. OLS was used to test the hypothesis, and they found that boardgender and racial diversity have significant and positive correlation to firm size which means that large firms are more probable to appoint women and minorities to the board. They concluded that diversity measures are positively and significantly correlated to firm performance.

One weakness of Miller and Triana (2009) study is the limited number of years considered (2003-2005); if more years are studied it could give a better and more comprehensive picture of the effects of the variables under study. This low number of years used can generate a rather misleading result.

Marimuthu (2008) studied ethnic diversity of Board of Directors and its implication on firm performance. The study used secondary data from top 100 non-financial companies ranked through market capitalization and observed it over a six years period from 2000-2005. They measured ethnicity by the percentage of non-Malay directors and performance is viewed in terms of ROA. The two statistical techniques used were correlation and regression analysis and also adopted the weighted least square (WLS) as a remedial measure of correcting heteroscedasticity. They found that ethnic diversity is significantly and positively associated with performance. They finally concluded that increased ethnic diversity on boards of directors would lead to higher firm financial performance. A major limitation of this study is the sample involved only top firms and also comprises of variety of industries. Therefore, it is quite difficult to maintain homogeneous characteristics within the companies chosen as different industries tend to face different types of challenges.

#### **2.5.4 Board heterogeneity and firm performance**

Researchers have carried out studies linking heterogeneity or diversity to firm performance, stock performance, Corporate Social Responsibility, corporate restructuring patterns and Board effectiveness (Randoy, Oxelheim and Thomsen, 2006; Padilla 2011; Dobbin and Jung, (2011), Wahid (2012), Bear, Rahman and Post, 2010)

Wahid (2012) conducted a study on 1985 firms, this study linked board heterogeneity and board effectiveness together. Board heterogeneity was measured by age, gender, tenure, rank and function while Board effectiveness was measured in terms of CEO turnover, excess compensation, mergers and acquisition announcement returns and post-CEO replacement

performance. They concluded that heterogeneous boards are more effective in CEO selection due to access to a broader set of resources and greater talent pool, as well as increased independence. On the Mergers and acquisition it was explained that merger and acquisition transactions are usually complex and therefore, they will require an heterogeneous board with wide range of talents so as to make better decision in selecting value-enhancing projects. On board heterogeneity and directors' excess compensation they concluded that homogenous boards are more likely to award excess compensation compared to a more heterogeneous counterparts having heterogeneity mostly in tenure and rank.

Padilla (2011) investigates the aspect of director heterogeneity on the nature of restructuring measures by examining a unique firm-level panel of United States' freight railroads data covering a twenty-year period. Rather than considering the board exclusively on inside/outside director like most other previous researches, they classified directors based on the theory of resource-dependency theory and stakeholder theory, in line with these two theories they arrived at the two categories of director heterogeneity, these categories are based on directors' background and stakeholder condition. They concluded that CEO functional background and directors' stakeholder condition play an important role in shaping firm restructuring strategies.

Bear, Rahman and Post (2010) carried out a study on 51 firms in U.S; the argument for their study was based upon examining how diversity attributes such as gender composition and professional backgrounds among Board of Directors affect corporate reputation both directly, and indirectly, through improved CSR. As portrayed by their findings, they concluded that as the number of female director increases, it brings down the level of communication barriers and

this in turn can improve ratings for corporate social responsibility which can, in turn, enhance corporate reputation and positively impact financial performance, institutional investment, and share price.

Randoy *et al.*, (2006) found out that diversity has neither positive nor negative significant impact on stock market valuation. They further explained that even when individual diversity measure is examined one at a time, the same result will emerge as the performance measure are highly not correlated with the diversity variables. On this, they concluded that greater diversity would neither reduce nor enhance company performance.

## **2.6 Theoretical Framework**

Many of the studies that have emphasized more on the role of Board of Directors under corporate governance have mostly been underpinned by the agency theory (Daily, Dalton & Cannella, 2003). It is for this reason that studies have begun to emerge introducing and applying other theories that can fit into the concept of board heterogeneity. Various researches have used different theories to underpin their research on heterogeneity.

Sveiby (2000, 2001) and William and Ho (2001) have used the resource dependency theory arguing that all facets of human resources need to be fully utilized and that diversity in human resources will lead to better firm performance and wealth creation potential of the organization. Some other studies have used the combined theory of resource dependency theory and agency theory so as to improve and distinguish their studies from the studies that have concentrated solely on agency theory (Donaldson & Davies, 1991).

Some researchers have used the signaling theory (Certo, 2003; Deutsch & Ross, 2003); some combined the behavioral theory of a firm and the signaling theory (Miller & Triana, 2009), while others have used the Stewardship theory to explain the concept of board heterogeneity (Bear, Rahman & Post, 2010).

### **2.6.1 Agency Theory**

Agency theory is directed at the ubiquitous agency relationship in which one party known as the principal delegates work to another known as the agent, who performs the work. The theory assumes that agency problems can be resolved with appropriately designed contracts by specifying the rights belonging to agents and principals (Jensen & Meckling, 1976). Agency theory is also based on the idea that in a modern corporation, there is separation of ownership (principal) and management (agent), and this leads to costs associated with resolving conflict between the owners and the agents (Eisenhardt, 1989; Jensen & Meckling, 1976).

Eisenhardt (1989) stated that agency theory is majorly concerned with resolving two problems that arises in agency relationships, first is the problem that occurs when the principal and his agent's goal or objective conflicts and secondly, the inability of the principal to verify if the agent is behaving appropriately.

### **2.6.2 Stewardship Theory**

The stewardship perspective views directors and managers as stewards of firm. Stewardship theory argued that top management should be given autonomy based on trust and integrity,

which minimizes the cost of monitoring and controlling behaviour of the managers and directors. When managers have served a firm for considerable period, there is a “merging of individual ego and the corporation”.

Unlike agency theory; stewardship theory assumes that managers are stewards whose behaviors align with the objectives of their principals. The theory argues and looks at a different form of motivation for managers drawn from organizational theory. Managers are viewed as loyal to the company and interested in achieving high performance. The dominant motive, which directs managers to accomplish their job, is their desire to perform excellently. Specifically, managers are conceived as being motivated by a need to achieve, to gain intrinsic satisfaction through successfully performing inherently challenging work, to exercise responsibility and authority, and thereby to gain recognition from peers and bosses. Therefore, there are non-financial motivators for managers (Donaldson & Davis, 1991).

Proponents of stewardship theory contend that superior corporate performance is linked to a majority of inside directors’ diversity as they naturally work to maximize profit for shareholders. However, one key concern with stewardship theory is that it fails to account for those instances where managers do not act as good stewards and exploit their position to the detriment of shareholders (Fan, 2012).

### **2.6.3 Resource Dependency Theory**

The concept of the “Resource Dependence Perspective” (1978) gained popularity after the publication of the book “The External Control of Organizations: A Resource Dependence



Perspective” by Jeffrey Pfeffer and Gerald Salancik became widely accepted in the Anglo-American discussion (Nienhüser, 2008). A fundamental assumption of Resource Dependence Theory laid by Nienhüser (2008) is that dependence on “critical” and important resources influences the actions of organizations and those organizational decisions and actions can be explained depending on the particular dependency situation. In essence, these important resources that influence the behaviour of the organization can be said to be the top management (that is, directors) among others.

Resource dependence theory (RDT) maintains that organizations are resource insufficient; they strive to acquire and sustain resources from their external environment. Resources are controlled by external actors who exert demands on the organization. These actors perceive some benefits in their relationship with the organization and exercise power through control over resources. The heavier the dependence on external resources, the more the demands of particular actors controlling these resources are influential (AbouAssi, 2013).

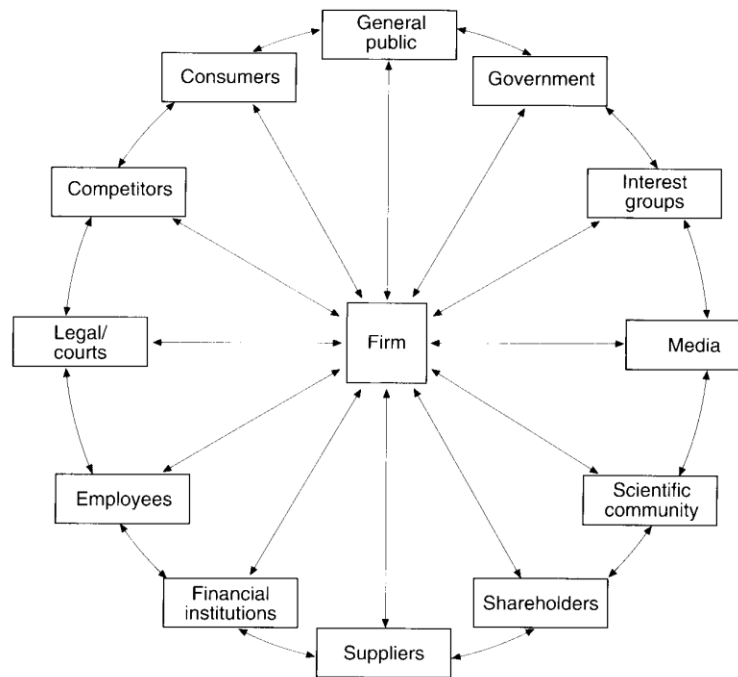
Sveiby(2000, 2001) and William and Ho (2001) argued that all facet of human resources need to be fully utilized, and that diversity in human resources will best enable a firm to increase its performance and wealth-creation potential. Similarly, Hermalin and Weisbach (2001) also argue in favour of resource dependency theorists stating that skills, gender experience, expertise, nationality and ethnicity of board members form the important resources to guide and help firm performance.

#### **2.6.4 Stakeholder Theory**

Freeman (1984) one of the founding fathers of stakeholder theory, defines stakeholder as “any group or individual who can affect or is affected by the achievement of the organization's objectives”. The shareholders are one of the important stakeholders of a business. Like other stakeholders such as the government, customers, suppliers, local community and even the competitors, shareholders also have a stake in the business as they are affected by its success or failure. As a business owes special obligation to the shareholders, consequently it also has some duties to other stakeholders.

Heath & Norman(2004) stated that the firm and its directors are charged with the responsibility of making sure that the shareholders receive a fair return on their investment and for their risk taken. In this same way, the firm also owes special obligations to other stakeholders, which go above and beyond the requirement of the existing laws. In situations where these interests conflict, the demands and interests of some stakeholders and shareholders must be balanced or sacrificed so as to fulfill basic obligations to other stakeholders as the case may be.

Hillman *et al.*, (2001) suggest that including stakeholders (i.e. diverse board members) on a board is crucial in securing the interests of different stakeholder groups, as this ensures that companies can better protect and respond to their needs as board members who represent the company's stakeholder groups can provide unique knowledge about the changing demands of external stakeholders.



**Figure 1.0: Stakeholder Theory Circle**

### 2.6.5 Upper Echelon Theory

Upper Echelon theory by Hambrick and Mason (1984) states that an organization's outcome, strategic choices and performance level are partially predicted by managerial background characteristics. Marimuthu (2008) asserts that one of the most effective theories that can be used to underpin studies on board heterogeneity is the Upper Echelon Theory by Hambrick and Mason (1984).

In view of this, top management members could with greater demographic diversity, influence decision making process in the top management and positively contribute to firm performance. In this theory, they stated that in stable environment, team homogeneity will be positively

associated with profitability and that in turbulent environment, especially discontinuous environment, team heterogeneity will be positively associated with profitability.

The demographic characteristics on top management team include age, gender, race, ethnicity, functional background, education, tenure.

Hambrick and Mason (1984) paved a way to deal with diversity within top management and its impact on firm performance that is better known as the Upper Echelon Theory. They argued that top management's characteristics (e.g. demographic) influence the decisions that they make and therefore the actions adopted by the organizations that they lead. It occurs because demographic characteristics are associated with many cognitive bases, values and perceptions that influence the decision making of top management (Marimuthu&Kolandasamy 2009).Therefore, For the purpose of this study we adopt the Upper Echelon Theory to underpin our study.This is because our study deals with the characteristics of directors and how it affects the organization that they govern.

## **CHAPTER THREE RESEARCH METHODOLOGY**

### **3.1 Introduction**

The study examines the relationship between the Board of Directors and their effect on firm performance. This chapter presents the methodology used to test the research hypotheses presented in chapter one and to support the argument in chapter two or otherwise. This section discusses the data collection procedures, the operationalization and measurement of the variables, the sampling techniques and the analytical procedures used in the research.

### **3.2 Research Design**

The study employed descriptive research approach in order to address the problem, looking at it from correlation design perspective. Correlation research is a research design that reveals the relationship of variables under investigation. For this reason, it will be used in this study to find the relationship between Returns on Equity (ROE) as dependent variable and board nationality, board gender and board ethnicity as the independent variable as well as board size and firm size as control variables introduced.

### **3.3 Population and Sampling**

The population of the study constitutes all the 15 Deposit Money Banks listed on the Nigeria Stock Exchange as at December 31<sup>st</sup>, 2012.

**Table 3.1: Population of the study table**

<b>LISTED BANKS</b>	<b>YEAR LISTED ON NSE</b>
Access Bank	1998
Diamond Bank	2005
Ecobank Transnational Incorporated	2006
Fidelity Bank of Nigeria	2005
First City Monument Bank	1971
First Bank of Nigeria	1971
Guaranty Trust Bank	1996
Skye Bank	2005
Stanbic IBTC Bank	2005
Sterling Bank	1993
Union Bank of Nigeria	1970
United Bank for Africa	1970
Unity Bank plc.	2005
Wema Bank	1991
Zenith Bank	2004

Based on this population, the study employed censoring sampling technique to suit the model adopted for this study, a filter is employed to select some of the banks as follows;

- i. Banks that are not listed as at 2005 are dropped.
- ii. Banks that are listed since 2005 and are no longer in existence or have been delisted as at 2012 were also eliminated.

Consequently, 2 banks were eliminated using the filter, leaving 13 banks while another two banks (Unity bank Plc and Stanbic IBTC Bank) were dropped for insufficient data records. The remaining 11 banks that met all the criteria were used as the adjusted population of the study.

The entire population was used based on census approach. Table 3.2 contains the banks that satisfied this criteria.

**Table 3.2: Sample of the study table**

<b>BANKS</b>	<b>YEAR LISTED ON NSE</b>
Access Bank	1998
Diamond Bank	2005
Fidelity Bank	2005
First Bank of Nigeria	1971
First City Momentum Bank	2004
Guaranty Trust Bank	1996
Sterling Bank	1993
Union Bank of Nigeria	1970
United Bank for Africa	1970
Wema Bank	1991
Zenith Bank	2004

### **3.4 Sources and Method of Data Collection**

Data was obtained from secondary sources and survey study of names of directors was carried out so as to determine their backgrounds. The data was collected from the published financial statements of the sampled firms covering the period of eight years (2005-2012). The nationality of the directors, most especially the foreign directors, is stated in the annual report. As for ethnicity, Brammer, Millington and Pavelin (2007) argued that ethnicity is to some extent self-perceived and individuals can think of themselves as members of several ethnic groups and that there are clearly significant complexities surrounding the classification of ethnic identity.

Therefore, based on these issues, they added that prior literatures (Brammer, Millington & Pavelin, 2007; Marimuthu, 2008) has chosen to approach the identification of the ethnicity of individuals by using a survey method based on their names.

### **3.5 Technique of Data Analysis**

In analyzing the collected data, multiple regression analysis was used. The technique was made possible with the use of the STATA 10 package. This technique is in line with that adopted by Marimuthu(2008), Omoye and Eriki(2013) and Ujunwa *et al.*, (2012). The normality test and robustness test was also carried out to further improve the validity of the result.

### **3.6 Variables Measurement**

#### **(a) ROE (Dependent Variable)**

The Return on Equity (ROE) is the dependent variable and is measured as profit after tax divided by total equity value.

#### **(b) Board Nationality**

The boardnationality variable is measured as the ratio of total foreign directors divided by the boardsize. This is in line with the measurement of Marimuthu(2008) and Miletkov, Poulsen and Wintoki (2012).

#### **(c) Board Gender**

The boardgender variable is to be measured as the ratio of women directors to the total boardsize as in Vink(2012). This is also in line with the measurement of Erhardt,



Werbel and Shrader (2003), where they measured board gender as ratio of female directors to total board size.

**(d) Board Ethnicity**

There are three major tribes in Nigeria, the Hausa-Fulani, Igbo and Yoruba Ujunwa,*et al.*, (2012) categorized ethnicity as North, East, and West representing Hausa-Fulani, Igbo and Yoruba respectively. This makes the total number of groups to be 3, meaning each director can fall only in one group at a time. Therefore, for any group to be present on the board it assumes a weight of 1, which means, where all three groups are present on the board, they assume a weight of three, giving each group a chance of equal measurement and fair representation. Therefore, ethnicity is measured as the ratio of total number of ethnic group present to the weight of three (3). Our expectation based on these variables is that all are expected to be positively significant.

(e) **Firm Size**(control variable)- measured as natural logarithm (ln) of total asset.

(f) **Board size**(control Variable)- measured as the total number of directors sitting on the board for the year. Board size is likely to influence measures of demographic heterogeneity, since large groups have more potential for dissimilarity (Weirsemá & Bantel, 1992)

**3.7 Model Specification**

Financial performance (FP) for the purpose of this study is a function of Return on Equity (ROE). Therefore;

$$ROE = f (BN, BG, BE, BS, FS) \dots \dots \dots (1).$$

The ordinary least squares (OLS) regression was used to estimate the impact and the equation is given below:

$$ROE_{it} = \beta_0 + \beta_1 BN_{it} + \beta_2 BG_{it} + \beta_3 BE_{it} + \beta_4 BS_{it} + \beta_5 FS_{it} + e_{it} \dots \dots \dots (2)$$

Where:

$\beta_0, \beta_1, \beta_2, \beta_3, \dots, \beta_5$  are parameter coefficients estimated with our expectation.

ROE = Return on Equity

$\beta_0$  = Constant

BN = Board nationality

BG = Board gender

BE = Board ethnicity

BS = Board size

FS = Firm Size

$e_{it}$  = error term

it = Combination of firms and time.

**CHAPTER FOUR**  
**DATA PRESENTATION AND ANALYSIS**

**4.1 Introduction**

This chapter presents and discusses the result of data analysis. It starts with the analysis of the data using descriptive statistics, followed by the presentation of the result of the model estimation. Multiple regression has been used to estimate the relationship between the independent variables (board nationality, board gender and board ethnicity) and dependent variable (Return on Equity). This is concluded with the discussion of major findings and policy implication of the findings.

**4.2 Descriptive Statistics**

The Descriptive statistics of variables are presented in Table 4.1 where the mean, standard deviation, minimum and maximum of the variables used in the study are described. The description helps in showing the nature of the data.

**Table 4.1: Descriptive Statistics of the Variables**

<i>Var</i>	<i>Obs</i>	<i>Mean</i>	<i>StdDev</i>	<i>Min</i>	<i>Max</i>	<i>Skew</i>	<i>Kurtosis</i>
<i>ROE</i>	88	7.0547	5.91197	0.24	21.83	1.022	0.052
<i>BN</i>	88	5.8552	9.76483	0.00	33.33	1.465	0.947
<i>BG</i>	88	8.0042	8.13821	0.00	33.33	0.727	-0.201
<i>BE</i>	88	0.8678	0.21770	0.33	1.00	-1.426	0.826
<i>BS</i>	88	14.1136	3.33367	7.00	22.00	-0.52	-0.109
<i>FA</i>	88	15.4065	7.84668	4.99	52.00	0.750	3.727

*Source: STATA 10 Regression result*

Table 4.1 presents the descriptive statistics for the dependent and independent variables (ROE- Return on Equity, BN-Board Nationality, BG-Board gender, BE-Board Ethnicity). The average

number in the boardroom is 14.11 with a minimum of 7 board members and a maximum boardroom of 22 directors. One issue noteworthy is that the average percentage of female representation among the Board of Directors is remarkably low with only 5.8% and standard deviation of almost 10. From the table, ROE has a relatively high average of 7.05% with a standard deviation of 5.92. meaning that the average Nigeria listed deposit money banks perform well especially with some banks earning as much as 21.83% return on their equity.

On board ethnicity, the result shows that 87% of banks in the observation have ethnically diffused boards while just about 13% are homogeneous. This can be seen in the table where board ethnicity is about 0.8678 with a standard deviation of 0.217. Also, the minimum and maximum values of the variables are ROE (0.24, 21.83) BN (0.00, 33.33), BG (0.00, 33.33) and BE (0.33, 1). Finally, the skewness reveals that data obtained for all variables are normal. While result of the normality test indicates the normality of data and further enhances the validity of the regression result.

### 4.3 Correlation Matrix

Table 4.2 contains the correlation values between the explained and explanatory variables as well as between the explanatory variables themselves.

**Table 4.2: Correlation matrix of Dependent and Independent Variables**

<i>Var</i>	<i>ROE</i>	<i>BN</i>	<i>BG</i>	<i>BE</i>	<i>BS</i>	<i>TA</i>
<i>ROE</i>	1.000					
<i>BN</i>	-.251	1.000				
<i>BG</i>	.107	-.121	.1.000			
<i>BE</i>	.237	.007	.283	1.000		
<i>BS</i>	-.120	.030	.362	.497	1.000	
<i>FS</i>	.509	.091	-.134	.127	-.120	1.000

*Source: STATA 10 Regression result*

Table 4.2 presents the correlation of the variables under study. Ethnic Diversity was positively related to performance(ROE) ( $r = 0.237$ ) which is just about 24%. Similarly, there was a positive correlation between boardethnicity and firm size measured as total asset (FS) ( $r = 0.127$ ). This indicates that the larger the company, the higher the ethnic heterogeneity. This result is contrary to the study of (Marimuthu, 2008). Boardethnicity also shows a positive correlation with board size ( $r = 0.497$ ), implying that the larger the size of the Board, the higher the board ethnic dispersion. This is also contrary to the study of Marimuthu(2008).

Boardnationality shows a negative relationship with ROE ( $r = -0.251$ ) while, board Gender shows a positive correlation with ROE ( $r = 0.107$ ) and board size ( $r = 0.362$ ) but shows a negative relationship with firm size ( $r = -0.134$ ) which indicates that the larger the firm, the lower the gender heterogeneity. In essence, this means that as the total asset of listed deposit money banks in Nigeria increases, they tend to reduce the number of females on their boards, this contradicts the study of (Miller & Triana, 2009) where they concluded that the larger the firms the more they are likely to appoint female directors.

Similarly,

While the analysis above relates the independent variables to the dependent and control variables, the correlation between independent variables shows that boardethnicity is positively related to boardnationality ( $r = 0.007$ ) and boardgender ( $r = 0.283$ ), while boardgender is negatively correlated with boardnationality ( $r = -0.121$ ).

#### 4.4 Presentation and Discussion of Regression Result

This section presents and analyses the regression result. Table 4.3 and 4.4 depicts the model summary and regression result respectively while original output has been attached to the appendix.

##### 4.4.1 Board of Directors Heterogeneity and Firm Performance

The summary of the overall result of directors heterogeneity as presented in Table 4.3 shows the R, R-square, adjusted R- square and Durbin Watson.

**Table 4.3: Model summary of the study**

<i>Model</i>	<i>R</i>	<i>R-Square</i>	<i>Adj R<sup>2</sup></i>	<i>Std Error</i>	<i>F Change</i>	<i>Sig</i>	<i>DW</i>
<i>1</i>	<i>0.651</i>	<i>0.423</i>	<i>0.388</i>	<i>4.625</i>	<i>12.036</i>	<i>0.000</i>	<i>1.914</i>

*Source: STATA 10 Regression result*

In Table 4.3, R explains the relationship between the explained and the explanatory variables. This is explained up to 65% showing that director's heterogeneity is positively and strongly related to profitability of listed deposit money banks in Nigeria. The coefficient of determinations reveals a value at 0.423 indicating that board heterogeneity explains upto 42% of the variation in performance of listed deposit money banks in Nigeria and the remaining 58% is covered by the other factors that are beyond the scope of this study.

The adjusted R square is 39% which further indicates the fitness of the model. Finally, the summary of the model shows that the model is fit and that all explanatory variables have been carefully selected as this is confirmed by our f-statistics of 12.036 with a significant value of 0.000 which is significant at 1%.

**Table 4.4: Board Heterogeneity and Firm Performance**

<i>Var</i>	<i>Beta</i>	<i>Std Error</i>	<i>T-Values</i>	<i>P-Values</i>
<i>Constant</i>	1.345	2.638	.510	.611
<i>BN</i>	-.165	.051	-3.204	.002
<i>BG</i>	.112	.067	1.667	.099
<i>BE</i>	6.717	2.721	2.469	.016
<i>BS</i>	-.411	.181	-2.266	.026
<i>FS</i>	0.373	.066	5.654	.000

*Source: STATA 10 Regression result*

Table 4.4 shows the regression result and is discussed below;

#### **4.4.1 Board Nationality and Firm Performance**

Our regression result indicates that boardnationality as measured by ratio of foreign directors to board size is negatively related to performance and statistically significant at 1% level in determining the profitability of listed deposit money banks in Nigeria which is consistentwith our apriori expectation. Beta value shows -0.273 with a significant value of 0.002. This implies that the higher the boardnationality, the lower the reported ROE. This result indicates that for every one point increase in foreign director, performance (ROE) reduces by 0.273. Thereason for this negative impact between boardnationality and firm performance is the cost involved as a result of physical distance of foreign directors and the company.

Another reason is the fact that they may come from a country with different culture and languages which might pose difficulty in communicating with other directors and monitor managers. This result is consistent with the findings of Miletkov, Poulsen and Wintoki (2012), Masulis, Wang andXie (2010) and contradicts the studies conducted by Ujunwa *et al.*, (2012), Zainal, ZulkifliandSaleh (2013).

#### **4.4.2 Board Gender and Firm Performance**

The regression result in respect of association between boardgender and firm performance shows that women are significant and positively impacting on Banks performance as the beta value stands at 0.154 and significant but at 10%. Despite the fact that our descriptive statistics result shows that women representation is low; their impact is still felt on the performance of the listed deposit money banks in Nigeria.

This outcome could be explained by acknowledging that women are mostly found to be particularly good at defining responsibilities clearly as well as being strong on mentoring and coaching employees(Credit Suisse Research Institute, 2012). Similarly, the presence of women on the corporate boards seems to increase the boards' effectiveness through reducing the level of conflicts among the Board of Directors and employees as well as ensuring a high quality of performance (Nielsen & Huse, 2010).

#### **4.4.3 Board Ethnicity and Firm Performance**

The regression result of boardethnicity is found to be significant and positively impacting on banks performance in Nigeria. The beta value of at0.247 is significant at 5% (P-value =0.016). This indicates that for every unit increase of ethnic diversity, performance increase with about 0.25 points. This could be as a result of ethnic diversity being more efficient in providing solution to ill-defined and noble problems in which diversity of opinion, knowledge is required which allows for a thorough examination and alternatives (Filley, House & Kerr, 1976). Selecting director with different ethnic background also provides opportunities to tap into diverse human and material resource needed for growth and expansion of a company. This finding is



consistent with those reported by Eriki and Omoye (2013), Marimuthu and Kolandiasamy (2009), Marimuthu(2008),Miller and Triana (2009), Olaoti (2012) but contrary the findings of (Ujunwa *et al.*, 2012).

#### 4.5 Heteroskedasticity Test

This test is used to check the normality of residuals in the result. From the table, the chi has a value of 0.01 and probability of 0.9164. This implies that there is absence of heteroskedaticity in the study since it is not significant.

#### 4.6 Robustness Test

Multicollinearity and autocorrelation test of the variables of variables were also considered in this study. While the tolerance value and variance Inflation Factor (VIF) are employed to test for multicollinearity of the independent variables.

**Table 4.5: Tolerance and VIF Values**

<i>Variables</i>	<i>BN</i>	<i>BG</i>	<i>BE</i>	<i>BS</i>	<i>FA</i>
<i>Tolerance</i>	0.972	0.826	0.700	0.674	0.917
<i>VIF</i>	1.029	1.211	1.428	1.484	1.090

*Durbin Watson 1.914*

*Source: STATA 10 Regression result*

Table 4.6 shows the tolerance and VIF. The tolerance figure for all the variables are less than one, this indicates that there is absence of multicollinearity because the closer the tolerance value is to one, the greater the evidence that there is no multicollinearity between the independent and the dependent variables. As for the VIF, this is another test of multicollinearity. All the variables are less than 2, the highest is 1.484 which is the board size (control Variable) and boardethnicity having 1.428, an indication that there is absence of multicollinearity and this is because the VIFs

are less than 10. The rule here is, VIF should not exceed 10 and this can only be possible where R square is up to 90%. Durbin Watson is 1.914 indicating there is no serial correlation within the period under study.

#### **4.7 Findings of the Study**

The findings of this study contribute to a better understanding on the mix of directors so as to improve the financial performance of Listed Deposit Money Banks in Nigeria. Return on Equity (ROE) and three other variables which represent board nationality, board gender and board ethnicity with two control variables which include board Size and Total Assets. All these factors were put to test in order to identify the possible Board of Directors composition that can improve the performance of listed deposit money banks in Nigeria.

The result shows that board gender, board ethnicity and board nationality are most important form of demographic heterogeneity that affects the financial performance of listed deposit money banks in Nigeria. The result indicates that only board nationality has a negative relationship with ROE while board gender and board ethnicity show a positive relationship.

Based on the empirical analysis, result showed that board nationality is significant and negatively influencing ROE. This implies that banks only benefit more from Foreign Directors expertise when they sought to have larger operations in the foreign directors home region. But since our result is negative, it means that listed deposit money banks in Nigeria has little or no strong business in their Foreign Director's home region and this indicates that in such instances, the cost of Foreign Directors slack monitoring outweighs the benefits from their expertise. Another

reason for the negative significant is the proximity of Foreign Directors to constantly attend meetings, and this hinders them from contributing positively to the performance of the company.

Furthermore, the effect of boardgender i.e. female on the performance of listed deposit money banks in Nigeria as indicated by our empirical evidence showed significant positive relationship between boardgender and firm performance. The result will not necessarily be positive and significant under conditions where status differentials between decision makers either prevent women from being heard or keep their perspective from being influential. The allusion here is that there is little or no status differentials between decision makers be it a woman, this further explains that women are not mere directors but directors that have been heard and their perspective are regarded influential.

A critical reason for this outcome is the fact that women bring a number of strength to the board especially in the area of corporate social responsibility and participative decision making styles. These benefits contribute enhance corporate social responsibility rating which in turn increases patronage from existing and potential customers and thus positively influence the performance of listed deposit money banks in Nigeria.

Our study also reveals that board ethnic heterogeneity is significant and positively affecting the performance of listed deposit money banks in Nigeria. The implication here is that Nigerian banks needs to venture more into balancing the ethnic heterogeneous composition of their corporate boards. This is because an ethnically diffused board enhances the effectiveness of the board actions and in turn increases productivity. Since shareholders are mostly interested in

returns on their investments, then much attention should be given to the ethnic diversity of their Board of Directors.

Parrotta *et al.*, (2013) stated that ethnic heterogeneity can well be an advantage to larger firms as the directors are likely to establish and implement policies that is capable of extracting the full benefit that can be derived from having an ethnically diverse workforce especially where the operation is spread across different geographical boundaries within or outside a country.

As pointed out by Upper Echelon theory, it can be deduced from the findings of this study that the organizational performance can partially be predicted by the background characteristics of their Board of Directors (Erhardt, Werbel and Shrader, 2003).

Finally, researchers could bring important insights into the value of board heterogeneity as a corporate governance tool. In all advanced societies of today it is unacceptable to doubt the value of board heterogeneity, and rightfully so. In the context of corporate governance, the attempt to find a more concrete causal links between board heterogeneity and good corporate governance does not call into question the intrinsic value of heterogeneity of Board of Directors within the firm. On the contrary, this study has provided empirical evidence to support heterogeneity as an overarching value.

## CHAPTER FIVE SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Summary

This study investigates the relationship between Board of Directors' demographic heterogeneity and financial performance of listed deposit money banks in Nigeria. The research was motivated by renewed interest evinced due to recent corporate failures and scandals.

This study examined Board of Directors demographic heterogeneity such as board nationality, board gender and board ethnicity while controlling for Board size and firm size. To understand the concept of heterogeneity, the study is anchored on the upper echelon theory of Hambrick and Mason (1984). Based on the upper echelon theory and review of extant literatures, conceptual framework and a set of hypotheses were developed.

In view of these hypotheses, a panel data regression model was adopted for the purpose of testing the impact of heterogeneity variables (BN, BG, and BE) on banks' financial performance following the work of Marimuthu and Kolandiasamy (2009), Ujunwa *et al.*, (2012) and Zainal, Zulkifli and Saleh (2013). The estimated regression equation was used to know if the cautious acts of the sampled banks have any effect on their performance and board nationality signifies a significant but negative effect on performance.

Board gender and board ethnicity are the two other demographic heterogeneity variables considered in this study that reported not only a significant effect but also with a favourable

impact on performance listed deposit money banks in Nigeria. These two variables confirm the upper echelon as they show a positive significance.

Therefore, the result of the study reveals that all three explanatory variables are significant in explaining the financial performance of the sampled banks. Though among the three, boardgender tested at 10% level of significance while boardnationality and boardethnicity tested at 5% significant level each.

These results contribute to the finance literature by providing evidence that supports the positive role of boardheterogeneity in determining the financial performance of listed deposit money banks in Nigeria. In addition, finance experts, practitioners as well as regulators can also benefit from this study as they can have insight on the mix of directors that can help stimulate monitoring role of the boards and better banks' performance.

## **5.2 Conclusion**

The study provides statistical and empirical evidence by using three independent variables that constitutes demographic board heterogeneity: Boardnationality, boardgender and boardethnicity in explaining and predicting the performance of sampled banks. In view of our findings, the study concludes as follows;

Firstly, boardnationality has a negative impact on banks financial performance because of their proximities of being absent during board meetings and this is among the reasons for their

negative impact because they will not be able to physically monitor and contribute their expertise to the affairs of the banks.

Secondly, boardgender has a significant positive relationship with banks financial performance. These may be because women bring a number of strength to the board in area of Corporate Social Responsibility (CRS)and this increases their customer base and better their financial performance.

Thirdly, boardethnicity has a significant positive relationship with financial performance of listed deposit money banks in Nigeria. Boardethnicity indicates how heterogeneous banks' boardis in terms of local representative. It is concluded here that ethnic heterogeneity is an essential ingredient in board composition as it helps firms tap into numerous human resources available to it.

Lastly, our result provides some novel insight for absolute understanding of ingredients of board heterogeneity that determine the financial performance of listed deposit money banks in Nigeria. Our estimation results confirmthe Upper Echelon Theory onBoard of Directorsheterogeneity. We considered periods within the period of 2005-2012 which is a period when numbers of changes and reforms have been witnessed by the banking industry.

### **5.3 Recommendations.**

Firstly, our findings point to the monitoring deficiencies of foreign directors and that they undermine the effectiveness of board oversight functions and contribute to more managerial

slack and misbehavior. In view of this, it is recommended that a balanced approach towards the hiring of Foreign Directors by Listed Deposit Money Banks in Nigeria and that a careful cost-benefit analysis warranted in such situations.

Secondly, like Norwegians Bank regulatory bodies in Nigeria should encourage companies to increase the number of women on their boards. Also, it appears that as firm size increases, the dynamic of board in terms of boardgender changes resulting to the detriment in some key department banks. Therefore, future researches should consider the role of women on boards and dynamics of their presence on the board which requires an observational and qualitative study.

Thirdly, Ethnic composition of Board of Directors of listed deposit money banks in Nigeria should be integrated into the corporate governance practices as allowing for a more ethnic balance translates into better financial performance.

#### **5.4 Limitations of the Study**

- i. This study has focused only on demographic heterogeneity because they are novel areas which have been rarely tested. However, there are others such as age and cognitive heterogeneity such as skills, experience, tenure and qualification.
- ii. The variables used have alternative way of measurement which may have given a better result, for example, boardethnicity could be divided into more than three categories i.e. using the six geopolitical regions as time goes on.



## **5.5 Suggestion forFuture Research**

This study examines Board of Director's heterogeneity and financial performance of Listed Deposit Money Banks in Nigeria and has also provided other areas of research as listed below.

- i.** The same study can be conducted using other sectors such as manufacturing firms, insurance and conglomerates.
- ii.** Research could be conducted using the combination of both demographic and cognitive heterogeneous variables.
- iii.** An individual study on the six geopolitical zones basically finding the impact of each zone on the board performance.

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[https://en.wikipedia.org/wiki/Kayode\\_Sofola](https://en.wikipedia.org/wiki/Kayode_Sofola)

<http://www.myfinancialintelligence.com/entrepreneur/tony-elumelu-%E2%80%93-proponent-africapitalism>

[https://en.wikipedia.org/wiki/Godwin\\_Emezie](https://en.wikipedia.org/wiki/Godwin_Emezie)

[http://www.ikaworld.com/index.php?mod=article&cat=politics&article=471&page\\_order=1&act=print](http://www.ikaworld.com/index.php?mod=article&cat=politics&article=471&page_order=1&act=print)

## APPENDIX A

### Population of the listed deposit money banks in Nigeria.

<b>LISTED BANKS</b>	<b>YEAR LISTED ON NSE</b>
Access Bank	1998
Diamond Bank	2005
Ecobank Transnational Incorporated	2006
Fidelity Bank of Nigeria	2005
First City Monument Bank	1971
First Bank of Nigeria	1971
Guaranty Trust Bank	1996
Skye Bank	2005
Stanbic IBTC Bank	2005
Sterling Bank	1993
Union Bank of Nigeria	1970
United Bank for Africa	1970
Unity Bank plc.	2005
Wema Bank	1991
Zenith Bank	2004

**Sample of the listed deposit money banks.**

<b>BANKS</b>	<b>YEAR LISTED ON NSE</b>
Access Bank	1998
Diamond Bank	2005
Fidelity Bank	2005
First Bank of Nigeria	1971
First City Momentum Bank	2004
Guaranty Trust Bank	1996
Sterling Bank	1993
Union Bank of Nigeria	1970
United Bank for Africa	1970
Wema Bank	1991
Zenith Bank	2004

```
. xtset id year, yearly
      panel variable: id (strongly balanced)
      time variable: year, 2005 to 2012
      delta: 1 year
```

```
. reg ROE BN BG BE BS FS
```

Source	SS	df	MS			
Model	1287.05747	5	257.411494	Number of obs =	88	
Residual	1753.71617	82	21.3867826	F( 5, 82) =	12.04	
Total	3040.77364	87	34.9514212	Prob > F =	0.0000	
				R-squared =	0.4233	
				Adj R-squared =	0.3881	
				Root MSE =	4.6246	

ROE	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
BN	-.1649994	.0514954	-3.20	0.002	-.2674401	-.0625588
BG	.1117512	.0670374	1.67	0.099	-.0216074	.2451099
BE	6.717466	2.721121	2.47	0.016	1.30429	12.13064
BS	-.4106438	.1811906	-2.27	0.026	-.7710897	-.050198
FS	.3730313	.0659809	5.65	0.000	.2417742	.5042884
_cons	1.345176	2.637939	0.51	0.611	-3.902525	6.592877

```
. vif
```

Variable	VIF	1/VIF
BS	1.48	0.673766
BE	1.43	0.700497
BG	1.21	0.825914
FS	1.09	0.917102
BN	1.03	0.972211
Mean VIF	1.25	

```
. hettest
```

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

H0: Constant variance

Variables: fitted values of ROE

chi2(1) = 0.01

Prob > chi2 = 0.9164

. su ROE BN BG BE BS FS, detail

ROE				
	Percentiles	Smallest		
1%	.24	.24		
5%	1.27	.35		
10%	1.74	1.11	Obs	88
25%	2.54	1.24	Sum of Wgt.	88
50%	3.89		Mean	7.054659
		Largest	Std. Dev.	5.911973
75%	11.425	21.43		
90%	16.04	21.5	Variance	34.95142
95%	20.99	21.75	Skewness	1.004827
99%	21.83	21.83	Kurtosis	2.981718

BN					
1%	Percentiles	Smallest			
5%	0	0			
10%	0	0	Obs		88
25%	0	0	Sum of wgt.		88
50%	0		Mean		5.855227
75%	12.7	Largest	Std. Dev.		9.764833
90%	20	30.77			
95%	30.77	31.25	Variance		95.35196
99%	33.33	31.58	Skewness		1.440126
		33.33	Kurtosis		3.826772

BG					
1%	Percentiles	Smallest			
5%	0	0			
10%	0	0	Obs		88
25%	0	0	Sum of wgt.		88
50%	7.14		Mean		8.004205
75%	14.29	Largest	Std. Dev.		8.138209
90%	20	23.52			
95%	21.43	25	Variance		66.23045
99%	33.33	26.67	Skewness		.7149151
		33.33	Kurtosis		2.743154

BE					
1%	Percentiles	Smallest			
5%	.33	.33			
10%	.33	.33	Obs		88
25%	.67	.33	Sum of wgt.		88
50%	1		Mean		.8678409
75%	1	Largest	Std. Dev.		.2177019
90%	1	1			
95%	1	1	Variance		.0473941
99%	1	1	Skewness		-1.401613
		1	Kurtosis		3.711961

BS					
1%	Percentiles	Smallest			
5%	7	7			
10%	8	7	Obs		88
25%	9	7	Sum of wgt.		88
50%	12		Mean		14.11364
75%	14	Largest	Std. Dev.		3.333673
90%	16	20			
95%	19	20	Variance		11.11338
99%	20	21	Skewness		-.051092
	22	22	Kurtosis		2.829282

FS					
1%	Percentiles	Smallest			
5%	4.99	4.99			
10%	5.34	5.18	Obs		88
25%	5.7	5.19	Sum of wgt.		88
50%	6.195	5.26	Mean		15.40648
75%	19.01	Largest	Std. Dev.		7.846679
90%	20.23	21.37			
95%	21.21	21.57	Variance		61.57037
99%	21.3	29	Skewness		.7373822
	52	52	Kurtosis		6.450715

. swilk ROE BN BG BE BS FS

Variable	Shapiro-wilk w test for normal data				Prob>z
	obs	w	V	Z	
ROE	88	0.84945	11.178	5.317	0.00000
BN	88	0.85771	10.564	5.193	0.00000
BG	88	0.93510	4.819	3.464	0.00027
BE	88	0.90585	6.990	4.283	0.00001
BS	88	0.98945	0.784	-0.537	0.70449
FS	88	0.75527	18.170	6.388	0.00000

. pwcorr ROE BN BG BE BS FS, star (0.05) sig

	ROE	BN	BG	BE	BS	FS
ROE	1.0000					
BN	-0.2511*	1.0000				
	0.0183					
BG	0.1067	-0.1212	1.0000			
	0.3223	0.2606				
BE	0.2368*	0.0074	0.2832*	1.0000		
	0.0263	0.9458	0.0075			
BS	-0.1203	0.0299	0.3623*	0.4972*	1.0000	
	0.2641	0.7822	0.0005	0.0000		
FS	0.5089*	0.0912	-0.1339	0.1273	-0.1199	1.0000
	0.0000	0.3980	0.2136	0.2372	0.2659	

<b>Guaranty Trust Bank directors (2005-2012)</b>
Professor M.O. Oyawoye
Mr. Olutayo .A. Aderinokun
Mr. J.K.Olusegun. Agbaje
Mr. Tajudeen A. Adeola
Mr. Adetokunbo B. Adesanya
Owelle Gilbert P.O. Chikelu
Alhaji Mohammed Jada
Mr. Victor G. Osibodu
Mrs. Mosunmola Olusoga
Mr. Jide Ogundare
Mr. Oluwole S. Oduyemi
Mr. Egbert U. Imomoh
Mr. Babajide Ogundare
Mrs. Catherine N. Echeozo
Alhaji Abba M. T. Habib
Mr. Andrew Alli
Mr. Akindele Akintoye
Mr. Olabode Augusto
Mr. Ibrahim Hassan
Mrs. Stella Okoli
Mrs. Titilayo Osuntoki
Mr. Akinola George-Taylor
Mrs Olutola Omotola

<b>United bank for Africa directors (2005-2012)</b>
Mr. Kayode Sofola, San
Mr. Tony O Elumelu Mfr
Alhaji Bello Garba
Mr. Phillips Uduoza
Mr. Godwin Ize-Iyamu
Mr. Victor Osadolor
Mrs. Suzanne Olufunke Soboyejo-Iroche
Mrs. Faith Tuedor-Matthews
Mr. Chika Mordi
Mr. Junald Dikko
Chief Isreal C Ogbue
Mrs. Rose A Okwechime
Chief Ferdinand N Alabraba
Mr. Willy Kroeger
Alternate: Mr. Neil Forsyth
Mr. Alessandro Deodato
Alternate: Mr. Paolo A Di Martino
Prof. Jean Herskovits
Dr. Khalid Al-Mansour
Angela Nwabuokwu
Emmanuel Nnorom
Ibrahim Jega
Rasheed Olaoluwa
Chief Kolawole B Jamodu , Ofr
Adekunle Olumide , Oon
Foluke Abdul-Razaq
Runa N Alam
Ja'afaru Paki
Alhaji Garba Ruma
Abdulqadir Bello
Joseph Chiedu Keshi
Kennedy Uzoka
Femi Olaloku
Ifeatu Onejeme
Yahaya Zekeri
Dan Okeke
Gabriel Edgal
Emeke E. Iweriebor





<b>Union Bank of Nigeria directors (2005-2012)</b>
Musa Gella Yakubu
Bartholomew Bassey Ebong
Ado Abdullahi
Ahmadu Abubakar
Kenneth Sola Adeyemi
John Omotoso Omotayo Akinleye
Mansur Ahmed
Chief Mrs. Onikepo Akande
Samual Idowu Oyininuola
Emmanual Chkwuma Edozien
Ebenezer Uzoma Emeruem
Ibrahim Abdullahi Gobir
Walter Chukwuka Odinaka Orji Mbah
Austen Iheanyi Njidefo Obigwe
Festus Boniface Oha Odimegwu
Onajite Okoloko
Olusegun Olusanya
Cosmas Paul Udofot
Yusuf Garba Ali
Paul Richard Belabor
Lady Eme Ufot Ekaette
Anthony Ebhodaghe Esangbedo
Mrs. Osibodu Olufunke Iyabo
Adeosun Adekunle Mickey
Ikeazor Phillip
Kwargana Ibrahim Abubakar
Shonubi Folasade Adebisi
Kaonen A Ali
D Rollo Greenfield
Marc X M G Biglia
Asuerinme A Ighodalo
Neil R Forsyth

<b>Fisrt Bank of Nigeria directors (2005-2012)</b>
Mutallab, Umaru Abdul
Ajekigbe, Jacobs Moyo
Aboh, John Oche
Bakare, Bashiru A
Duba, Garba
Hassan-Odukale, Oyekanmi
Ibrahim, Muhammadu
Kyari, Abba
Mahmoud, Abdullahi
Okoye, Christy N
Otudeko, Ayoola Oba
Udo-Aka, Udo
Wanka, Ado Yakubu
Woherem, Evans Ejike
Yahaya Umar
Adesola, Harriet-Ann Omobolanle
Afonja , Ajibola. Alarape
Babalola, Aderemi W
Otti, Alex C
Oyelola, Oladele
Sanusi, Sanusi Lamido
Alkali Aliyu Adamu
Lawanson Kehinde A.
Olabisi Stephen Onasanya
Ambrose Feese
Mr. Bello Maccido
Mr. Ebenezer Jolaoso
Mrs. Ibiai Ani
Alhaji Ibrahim Waziri
Mrs Ibukun Awosika
Ms. Khadijah Alao-Straub
Alhaji Lawal Ibrahim
Mr. Mahey Rasheed Ofr
Nigama Yerima Lawan
Mrs. Odunlami Remi

<b>Accessbank directors (2005-2012)</b>
Gbenga Oyebode Mfr
Aigboje Aig-Imoukhuede
Herbert Wigwe
Hrh, Oba Shafi A. Sule
Cosmas M. Maduka
Oritsedere S. Otubu
Taukeme Koroye
Okey Nwuke
Tunde Folawiyo
Mahmoud Isa-Dutse
Emmanuel Chiejina
Okey Nwuke
Dr. Adewunmi Desalu
Obeahon Ohiwerei
Ebenezer Olufowose
Fatai Oladipo
Mrs. Mosunmola Belo-Olusoga
Sunday Ekwochi
Mrs Anthonia Olufeyikemi Ogunmefun
Mr Victor Etuokwu

<b>First City MonumentBank directors (2005-2012)</b>
Dr. Jonathan A. D. Long
Oluremi A. Olowude
Biodun Oyapero
Ladipupo O. Balogun
Ladi A. Jadesimi
Alhaji Tijani Hashim (Galadima Kano)
Godwin T. S. Adokpaye
Dr. (Mrs.) Martina A. Nwakoby
Mallam Suleiman Yahyah
Henry Semenitari
Maurice Phido
Bismarck Rewane
John Udofa (Dr)
Alhaji Ibrahim Damcida
Mr. Anurag Saxena
Mr. Tope Lawani
Mr. Nigel Kenny
Mr Nabeel Malik
Mr Peter Obaseki
Alhaji Mustapha Damcida
Mr Olusegun Odubogun
Mr. Stephen O. Alashi
Otunba Olutola Senbore
Mr. Olutola O. Mobolurin
Mr. Olufemi Bakre
Mr. Segun Odusanya

<b>Diamond bank directors (2005-2012)</b>
Pascal G. Dozie
Emeka Onwuka
Ohis Ohiwerei
Urum Kalu Eke
Yerima Ngama
Uzoma Dozie
Oladele Akinyemi
Igwe Nnaemeka Alfred
Mr. Chris Ogbechie
Engr. Michael Ufoeze
Dr. Olubola Adekunle Hassan
Avm Ishaya Aboi Shekarri
Mazi Clement Onwunna
Lt. Gen. Jeremiah Timbut Useni
Dr. Nkosana Moyo
Mr. Simon Harford
Chief John Edozien
Dr. Alex Otti
Mr. Abdulrahman Yinusa
Mr. Victor Ezenwoko
Mrs. Caroline Anyanwu
Mr. Ian Greenstreet
Mr. Thomas Barry
Mrs. Omobola Johnson

<b>Zenith bank directors (2005-2012)</b>
Jim Ovia
Macaulay Pepple
Godwin Emefiele
Sir S. P. O Fortune Ebie
Chief E. M. Egwuenu
Sir Steven Omojafor
Prof L. F. O Obika
Babatunde Adejuwon
Danladi Boro
Apollos Ikpobe
Peter Amangbo
Elias Igbin-Akenzua
Andy Ojei
Udom Emmanuel
Alhaji Baba Tella
Alhaji Lawal Sani
Prof Chukwuka Enwemeka
Jeffrey Efyini

<b>Sterling bank directors (2005-2012)</b>
Sulaiman S. Baffa
Mr. A. G. Kalmankar
Alhaji (Dr.) S. A Adegunwa, Ofr
Captain Harrison Kuti
Mr. Yemi Idowu
Alhaji Aliyu A. Alkali. Mni
Alhaji Bashir Borodo, Mfr
Mr. Ynka Adeola
Mr. Biodun Dabiri
Mr. W. Babatunde Dabiri
Mr. Ben Akabueze
Mr. Lanre Adesanya
Mr. Sundaram Ranjan
Mr. Yemi Adeola
Alhaji Garba Imam
Mrs. Bharati Rao
Mr. S. K. Hariharan
Mr. T. P. Nageswara Rao
Mr. T. C. A. Ranganathan
Mr. Rajiv Pal Singh
Mr. Rasheed Kolarinwa
Mr. Musibau Fashanu
Mr. Devendra Puri



<b>Fidelity bank directors (2005-2012)</b>
Chief Christopher I. Ezeh Mfr
Reginald Ihejiahi, Ofr
Willie M. Obiano
Abdul-Rahman Esene
Ik Mbagwu
Onome Joy Olaolu
Mr. John Obi
Mrs. Chijioke Ugochukwu
Mr. Balarabe Mohammed
Mr. Nnamdi J. Okonkwo
Mrs. Bessie N. Ejeckam
Alhaji Bashari Mohammed Gumel
Mr. Stanley I. Lawson
Dim Elias E. Nwosu
Chief Nnamdi I. Oji
Arc. A. W. U. Okam
Mr. Gabriel Kayode Olowoniyi
Ichie Nnaeto Orazulike
Mallam Umar Yahaya
G. Peter Obi
Major General Mohammed Magoro(Galadima Zuru)
Nze (Dr) Clement Maduako Jp.Mfr.Npm
Elias E. Nwosu (Dim)
Bismarck J. Rewane
Stephen Lawani(Chief)
Rear Admiral G. Ndubuisi Kanu (Nn,

<b>Wema bank directors (2005-2012)</b>
Alhaji Olapade Mohammed
Alade Adeleke
Adelodun Olaiya
Adeyinka Adegbite
Bisi Omoyemi
Layi Afolabi
Yomi Adewusi
Omololu Meroyi (Senator)
Toye Olafintuyi
Nurudeen Fagbenro
Barrister J. A. Olofinuyi
Mr. Festus O. Ajani
Segun Oluketuyi
Samuel Bolarinde
Prince Adebode Adefioye
Chief Opeyemi Bademosi
Ademola Adebisi
Dr. Ayo Akinyelure
Prof. Taiwo Osipitan
Mr Ramesh Hathiramani
Mr Abubakar Lawal